

LAKE: PEMADUMCOOK CHAIN L (VLMP 05)
TOWN: T4, INDIAN PURCHASE
COUNTY: PENOBSCOT

MIDAS: 982
TRUE BASIN: 1
SAMPLE STATION: 6

WHOLE LAKE INFORMATION

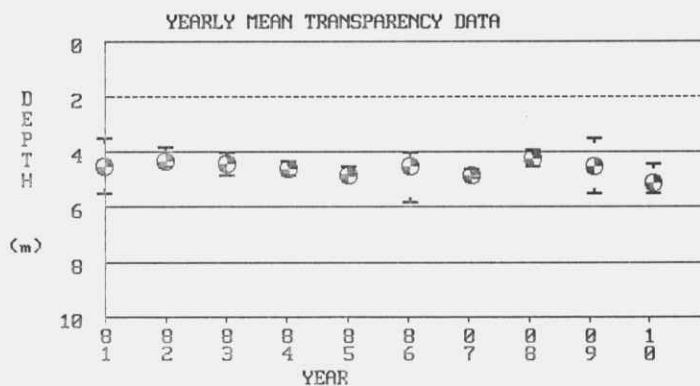
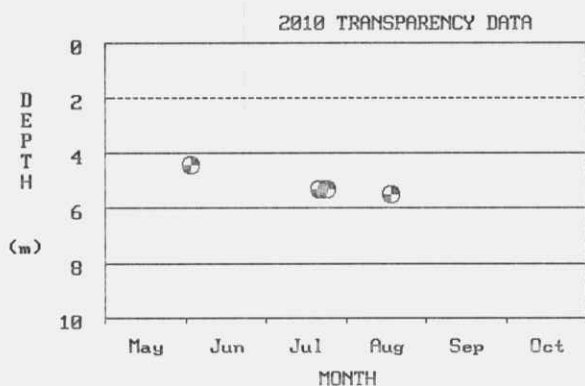
MAX. DEPTH: 31 m. (101 ft.)
MEAN DEPTH: 9 m. (28 ft.)
DELORME ATLAS #: 42
USGS QUAD: PEMADUMCOOK LAKE
IFW REGION F: Penobscot (Enfield)
IFW FISH. MANAGMENT: Warmwater & Coldwater

TRUE BASIN CHARACTERISTICS

SURFACE AREA: 7405.0 ha. (18297.5 a.)
FLUSHING RATE: 40.22 flushes/yr.
VOLUME: 604626432.0 cu. m. (490470 ac.-ft.)
DIRECT DRAINAGE AREA: 439.09 sq. km. (169.53 sq. mi.)

PLEASE NOTE THE FOLLOWING: The SAMPLE STATION # refers to the location sampled. The term TRUE BASIN is used to define areas within a lake that are separated by shallow reefs or shoals and therefore function as separate lakes. There are approximately 50 lakes in the state that have more than 1 True Basin. True Basin Characteristics are now being included in the first section of these reports to enable users of the Phosphorous Loading Methodology to better evaluate the data. If there is no data for a particular True Basin, True Basin Characteristics must be obtained from the DEP. PEMADUMCOOK CHAIN L has 1 True Basin(s).

SECCHI DISK TRANSPARENCY GRAPHS:



Note: 2010 graphs may indicate multiple readings taken on a given day.

SUMMARY OF CHEMICAL AND TROPHIC STATE PARAMETERS:

[* indicates that Secchi disk was visible at bottom of lake (or one reading used in calculation was visible)].

YEAR	MEAN	MEAN	MEAN	MEAN	TOTAL PHOS. MEANS (ppb)				SECCHI DISK (m.)				CHLOROPHYLL A(ppb)			TROPHIC STATE INDICES			
	COLOR	pH	ALK	COND.	EPI	SURF	BOT.	PRO.	MIN.	MEAN	MAX.	N	MIN.	MEAN	MAX.	C	G	SEC	CHL
	(SPU)		(mg/l)	(uS /cm)	CORE	GRAB	GRAB	GRAB											
1981	-	-	-	-	-	-	-	-	3.5	4.5	5.5	6	-	-	-	-	-	-	-
1982	42	6.00	7.0	17	8	-	-	-	3.8	4.3	4.5	4	2.3	2.3	2.3	-	-	-	-
1983	-	-	-	-	-	-	-	-	4.0	4.4	4.8	5	-	-	-	-	-	-	-
1984	-	-	-	-	-	-	-	-	4.3	4.6	4.8	5	-	-	-	-	-	-	-
1985	-	-	-	-	-	-	-	-	4.5	4.8	4.8	2	-	-	-	-	-	-	-
1986	40	6.90	8.0	31	8	-	-	-	4.0	4.5	5.8	5	-	-	-	-	-	-	-
2007	-	-	-	-	-	-	-	-	4.6	4.8	4.9	2	-	-	-	-	-	-	-
2008	48	6.99	7.0	24	-	6	-	-	3.9	4.2	4.5	2	-	-	-	-	-	-	-
2009	-	-	-	-	-	-	-	-	3.5	4.5	5.5	4	-	-	-	-	-	-	-
2010	-	-	-	-	-	-	-	-	4.4	5.1	5.5	3	-	-	-	-	-	-	-
SUMMARY:	43	6.39	7.3	24	8	6	-	-	3.5	4.6	5.8	10	2.3	2.3	2.3	-	-	-	-

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LATE SUMMER TEMPERATURE / DISSOLVED OXYGEN PROFILES:

DEPTH	SAMPLE DATE				
	08/12/82		08/26/86		
m	°C	ppm	°C	ppm	
0.0	21.0	8.7	19.1	7.1	
1.0	20.5	8.7	19.1	7.1	
2.0	20.0	8.5	19.1	6.7	
3.0	20.0	8.5	19.1	6.3	
4.0	20.0	8.5	19.1	6.2	
5.0	20.0	8.5	19.0	6.1	
6.0	20.0	8.3	19.0	5.9	
7.0	20.0	8.3	19.0	5.6	
8.0	20.0	8.2	19.0	5.3	
9.0	-	-	19.0	4.9	
10.0	-	-	18.9	4.5	

WATER QUALITY SUMMARY

AMBAJEJUS LAKE (PEMADUMCOOK CHAIN OF LAKES), T4, INDIAN PURCHASE

Midas: 0982, Sample Station # 06

The Maine Department of Environmental Protection (ME-DEP) and the Volunteer Lake Monitoring Program (VLMP) have collaborated in the collection of lake data to evaluate water quality, track algal blooms, and determine water quality trends. This dataset does not include bacteria, mercury, or nutrients other than phosphorus.

Water quality monitoring datasets for Ambajejus Lake have been collected since 1981. During this period, 2 years of basic chemical information was collected in addition to Secchi Disk Transparencies (SDT). In summary, the water quality of Ambajejus Lake is considered to be average, based on measures of SDT, total phosphorus (TP) and Chlorophyll-a (Chla). The potential for nuisance algal blooms on Ambajejus Lake is low.

Water Quality Measures: Ambajejus Lake is a colored lake (average color 40 SPU) with an average SDT of 4.8m (16 ft). Color does not necessarily impact the water quality of a lake, but it does reduce transparency readings. The water column TP for Ambajejus Lake is 8 parts per billion (ppb), while Chla is 2.3 ppb. No recent dissolved oxygen (DO) profiles have been taken, however older profiles show no DO depletion in deep areas at this station of the lake. The potential for TP to leave the bottom sediments and become available to algae in the water column (internal loading) is low. Oxygen levels below 5 parts per million stress certain cold water fish, and a persistent loss of oxygen may eliminate or reduce habitat for sensitive cold water species.

See ME-DEP Explanation of Lake Water Quality Monitoring Report for measured variable explanations. Additional lake information can be found on the Internet at <http://www.lakesofmaine.org/> and/or <http://www.maine.gov/dep/blwq/lake.htm>, or telephone the ME-DEP at 207-287-3901 or the VLMP at 207-783-7733.

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